



UNITED STATES PATENT AND TRADEMARK OFFICE

[Handwritten signature]

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/829,458

04/22/2004

Joseph H. Forrester

5420

6430

26936

7590

06/22/2005

SHOEMAKER AND MATTARE, LTD
10 POST OFFICE ROAD - SUITE 110
SILVER SPRING, MD 20910

EXAMINER

PEACE, RHONDA S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/829,458	FORRESTER, JOSEPH H.	
	Examiner	Art Unit	
	Rhonda S. Peace	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 2874

DETAILED ACTION


Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over  Hivner (US 5092663) ~~in view of Forrester et al (US 6311006)~~, and further in view of admitted prior art by the applicant.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hivner (US 5092663) in view of Forrester et al (US 6311006), and further in view of admitted prior art by the applicant.

Speaking to claims 1 and 2, Hivner discloses an apparatus and method for maintaining slack of a fiber optic cable or the like, such as fiber optic drop cable, where the cable is supported after exiting a cable closure 70 by an apparatus, (column 5 lines 27-32, Figure 6). The apparatus comprises a bend radius protector 10, having a channel, or groove, periphery 30, where the cable is not bent less than the minimum cable bending radius ((column 3 lines 23-27 and lines 33-39, column 1 lines 53-60, Figures 1 and 2. In addition, Hivner discloses a messenger cable 60 to suspend the bend radius protector 10 from the cable (column 4 lines 30-36, Figure 6). In the current application, the applicant includes an admission stating the bend radius of a fiber optic cable is five to fifteen inches, whereas the bend radius for a fiber optic drop cable does not exceed three inches (paragraph 0008). Hivner, while specifying the cable is not bent less than the minimum cable bending radius, does not disclose a radius between three and six inches for the bend radius protector. However, modification of Hivner's device to adapt to fiber optic drop cable, in addition to fiber optic cable, would, in the light of the applicant's admission, include modification of the bend radius protector 10 in that its radius not be less than three inches. It would have been obvious to one of ordinary skill in the art to combine the teachings of the admission of prior art with Hivner, since by accommodating the bend radius needs of the fiber optic drop cable by making bend radius protector 10 of a radius of at least three inches, and yet keeping the radius smaller than the fiber optic bend radius of five inches, the proper actions are taken to reduce damage to the fiber due to bending, and also the length of cable needed is minimized. As well, since Hivner specifies the cable is not bent less than the

minimum cable bending radius, it is also possible that the radius of the bend radius protector have any radius greater than or equal to three inches, when the admission of prior art is taken into account. It would have been obvious to one of ordinary skill in the art to again combine the teachings of the applicant's admitted prior art and Hivner to create a bend radius protector of bend radius equal to three inches, as a bend radius protector of bend radius equal to three inches allows for the most effective use of the drop cable, since it eliminates any cable that would otherwise be wrapped around a protector that is larger than necessary.

Addressing claims 3-6, the device of Hivner, in view of the admission of prior art by the applicant, is described above. Further, the device may comprise a second bend radius protector 10 (column 4 lines 48-50, Figure 5) and may be utilized in a method where the drop wire extends from the cable closure 70, mounted in the vicinity of a nearby pole, and passes around the periphery of the bend radius protector 10, which resides further from the nearby pole than the cable closure 70. When one bend radius protector 10 is used, the cable is then passed back toward the pole and secured (column 5 lines 27-32, Figure 6). However, if two bend radius protectors are used, the passed around the second bend radius protector before it is secured (column 4 lines 54-68 and column 5 lines 1-8, Figure 5).

With regards to claim 7, the device of Hivner, in view of the admission of prior art by the applicant, is described above. However, Hivner, in view of the admission of prior art by the applicant does not disclose orientation of the bend radius protectors in relation to the nearby pole, in that one protector is closer to the pole than the other. Nor

does Hivner, in view of the admission of prior art by the applicant, specify the path of the fiber optic drop cable as originating at the cable closure, proceeding around the bend radius protector closest to the nearby pole, and then around the bend radius protector furthest from the nearby pole. Forrester et al teaches an apparatus for storing surplus fiber optic cable which uses two bend radius protectors 40, where one protector 40' is mounted closer to the nearby pole than the other protector 40 (Figure 10), where the cable originates from the cable closure 70', proceeds around the bend radius protector 40' closest to the pole, then around the second bend radius protector 40 which is further from the pole, and then secured (column 7 lines 44-55, Figure 10). And while this orientation is described by Forrester et al, it is not the only cable orientation possible (column 7 lines 55-56). It would have been obvious to one of ordinary skill in the art to combine the teachings of the admission of prior art by the applicant, Hivner and Forrester et al by placing one bend radius protector closer to the pole than the other protector and also modifying the routing of the cable within the invention, in order to provide a uniform method by which the cables are to be routed, as well as providing a manner by which a splice closure can be installed at a surplus loop installation location.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimirak et al (US 4908482) describes a cable closure for connecting conductors of a multicore cable via a terminal block to drop wires. Sachs

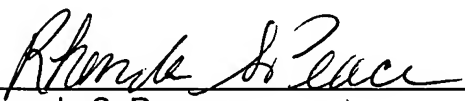
Art Unit: 2874

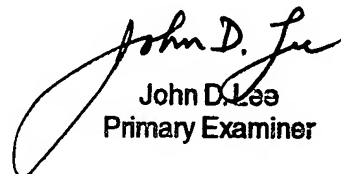
(US 5336846) describes a cable clamp for holding a cable suspended from a support mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rhonda S. Peace
Examiner
Art Unit 2874


John D. Lee
Primary Examiner